



## UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/574,287	03/31/2006	Alain Bouvier	288319US2PCT	5514
22850	7590	02/14/2008	EXAMINER	
OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			DOUGHERTY, SEAN PATRICK	
ART UNIT	PAPER NUMBER			
			4123	
NOTIFICATION DATE		DELIVERY MODE		
02/14/2008		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com  
oblonpat@oblon.com  
jgardner@oblon.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/574,287	<b>Applicant(s)</b> BOUVIER ET AL.
	<b>Examiner</b> SEAN P. DOUGHERTY	<b>Art Unit</b> 4123

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If no period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on \_\_\_\_\_.
- 2a) This action is FINAL.      2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 12-22 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_ is/are allowed.
- 6) Claim(s) 12-22 is/are rejected.
- 7) Claim(s) \_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)  
 Paper No(s)/Mail Date 06/30/2006, 08/11/2006
- 4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_\_
- 5) Notice of Informal Patent Application
- 6) Other: \_\_\_\_\_

### **DETAILED ACTION**

1. This is the initial Office action based on the 10/574287 application filed March 31, 2006. Claims 1-22, as originally filed, are currently pending and have been considered below. Claims 1-11 have been cancelled by the Applicant, claims 12-22 have been added. Claim 12 is independent.

#### ***Specification***

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

#### **Arrangement of the Specification**

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
  - (1) Field of the Invention.
  - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Examiner requests that the titles of each section be renamed appropriately to conform with current US practice.

2. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: the limitation "intrinsic parameters" (claim 20) requires antecedent basis in the specification.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 20 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The term "intrinsic parameters" of the shoes is insufficiently disclosed in the specification; Examiner is unsure of what parameters of the shoes are "intrinsic". Examiner has interpreted the "intrinsic parameters" as the shoe fitting around the foot of the individual wearing the shoe.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 4123

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 1-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Ladetto et al (US 2003/0018430 A1) in view of Wu (US 4571680).

Ladetto et al in view of Wu discloses a stride monitoring device.

**Regarding claims 12-17 & 22,** Ladetto et al discloses a measurement means to make at least one physical measurement (digital magnetic compass, 8a; gyroscopes/magnetometers 8b); and electronic means for processing of the physical measurement and for transmitting a signal output by electronic means (microprocessor, 2); wherein the measurement means includes a plurality of accelerometers (three-dimensional

accelerometer unit, 6) and a plurality of magnetometers (¶0172) capable of outputting signals that can be processed to determine stride parameters (¶0183, lines 1-7).

Ladetto et al does not appear to explicitly disclose first and second shoes including at least a one permanent magnetic mass;

wherein the stride length estimating algorithm uses a measurement of a variation in magnetic field resulting from movement of the magnetic mass.

However, Wu teaches first and second shoes (Fig. 5) including at least a one permanent magnetic mass (magnet, Fig. 2; Examiner notes Fig. 5 discloses a shoe with the wherein the magnet is disposed). Examiner notes that such device could easily be provided on a first and second shoe being that the reference Wu discloses the device capable of being disposed on a shoe;

wherein the stride length estimating algorithm uses a measurement of a variation in magnetic field resulting from movement of the magnetic mass (col. 3, lines 38-45).

Ladetto et al and Wu are analogous art because they are from the same field of endeavor/problem solving area of distance devices used in context with determine specific characteristics concerning the movement of a mobile human in step. At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Ladetto et al and Wu before him or her to modify the means to make at least one physical measurement; and electronic means for processing of the physical measurement and for transmitting a signal output by electronic means; wherein the measurement means includes a plurality of and a plurality of magnetometers capable of outputting signals that can be processed to determine stride parameters of Ladetto to

be provided on the first and second shoes and including a permanent magnet mass of Wu. The motivation for doing so would have been provide displacement data on a pedestrian determined by their accelerations and step frequency (Abstract, lines 1-2) as the device is worn by a human pedestrian (¶0164, lines 6-7) as both disclosed by Ladetto et al and to "accumulate the number of steps walked" (Abstract, lines 1-2) including a "circuit device in a shoe" (col. 1, lines 1-2) comprising a permanent magnet mass for measurement of the magnetic field resulting from the movement of the magnet (magnet A, Fig. 5; col. 3, lines 38-45) as all taught by Wu. Therefore, it would have been obvious to combine Ladetto et al with Wu to obtain the invention in the instant claim 12-17 & 22.

**Regarding claim 18,** Ladetto et al discloses portable means for receiving the signal transmitted by the transmission means and for displaying data representative of the signal (¶0164; ¶0168, lines 8-11).

**Regarding claim 19,** Ladetto et al discloses a portable means comprising data reception means (data bus, 4); electronic data processing means for processing data (microprocessor, 2), the electronic data processing means including a memory (memory, 12); control input means (multiplexer, 20); and display means (user interface, 14).

**Regarding claims 20 and 21,** Ladetto et al discloses a memory (memory, 12) including a sequence to calibrate the signal transmitted by the transmission means (referred to as "Continuous Step Calibration" ¶0216), as a function of stride length, a stride length estimating algorithm, an algorithm to calibrate the signal transmitted by the

transmission means as a function of the parameters input by a user (¶0301 & 0349), and an algorithm to estimate the stride speed (¶0070); and

a calibration sequence that is designed to determine a mathematical calibration law by a polynomial regression (See the regression parameters of Equation 1), and to determine a direct correspondence between the measured signal and the stride length (¶0220 & ¶0221), and a given individual (pedestrian, Abstract, line 1).

Ladetto et al does not appear to explicitly disclose a sequence to calibrate the signal transmitted by the transmission means as a function of intrinsic parameters of shoes.

However, Wu discloses a sequence to calibrate the signal transmitted by the transmission means as a function of intrinsic parameters of shoes (¶0070; *please see 35 USC § 112 rejection*) and determining a direct correspondence between the measured signal given shoes (¶0070; Examiner notes Fig. 5 discloses a shoe). Examiner notes that the stride length of a given individual is also the stride length of the shoes.

Ladetto et al and Wu are analogous art because they are from the same field of endeavor/problem solving area of distance devices used in context with determine specific characteristics concerning the movement of a mobile human in step. At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Ladetto et al and Wu before him or her to modify calibration sequence of Ladetto to include the function of intrinsic parameters of shoes and determining a direct correspondence between the measured signal given shoes. The motivation for doing so

would have been provide displacement data on a pedestrian determined by their accelerations and step frequency (Abstract, lines 1-2) as the device is worn by a human pedestrian (¶0164, lines 6-7) as both disclosed by Ladetto et al and to "accumulate the number of steps walked" (Abstract, lines 1-2) including a "circuit device in a shoe" (col. 1, lines 1-2) as all taught by Wu. Therefore, it would have been obvious to combine Ladetto et al with Wu to obtain the invention in the instant claims 20 & 21.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SEAN P. DOUGHERTY whose telephone number is (571)270-5044. The examiner can normally be reached on Monday-Thursday, 7:00am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joe Del Sole can be reached on (571) 272-1130. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/S. P. D./  
Examiner, Art Unit 4123

/Joseph S. Del Sole/  
Supervisory Patent Examiner, Art Unit 4123